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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,502	01/13/2006	Katsutoshi Takagi	284119US2XPCT	8834

22850 7590 06/08/2009

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EXAMINER	
YANG, JIE	
ART UNIT	PAPER NUMBER
1793	

NOTIFICATION DATE	DELIVERY MODE
06/08/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/564,502	TAKAGI ET AL.	
	Examiner	Art Unit	
	JIE YANG	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) *7,8 and 12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 9-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 January 2006* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election of "Group I—Claims 1-6 and 9-11, drawn to a product of a silver alloy-sputtering target in the reply filed on 3/26/2009 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP 818.03(a)).

Claims 7, 8, and 12 are withdrawn from consideration as being directed to a non-elected group and claims 1-6 and 9-11 remain for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "(X_1/X_1)" in line 3. There is insufficient antecedent basis for this limitation in the claim because according the disclosure from paragraph [0014] in page 7-8 of the instant specification; it should be "(X_2/X_1)" not more than 35%.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by Segal (US 6,238,494 B1, thereafter, US'494).

Regarding claim 1, US'494 teaches a metal sputtering target with fine uniform structure and textures (Col.1, line 13-16 of US'494). The claimed Ag and its alloy are included in US'494's metal scope (Col.1, 61-66, Claims 14 and 28 of US'494). US'494 teaches a very fine and uniform structure and strong, uniform texture for the target product (Col.5, Line 7-20 of US'494), and a dispersion in orientation content ratio of texture of less than ±4% at any location (Abstract, claim 1 of US'494), which reads on the claimed limitation that Ag sputtering target has three-dimensional fluctuation of grain size not more than 18% as recited in the instant claim. Regarding the limitation of measuring grain size in the instant claim, it is a measuring method for the known property, which will not change or affect the uniformity property of the claimed Ag alloy target. Because

US'494 teaches the claimed three-dimensional fluctuation of grain size, claim 1 is anticipated by US'494.

Regarding claim 2, US'494 teaches a very fine and uniform structure and strong, uniform texture for the target product (Col.5, Line 7-20 of US'494) and US'494 specifically teaches the average grain size of 6 micrometers (Claim 4 of US'494), which is within the average grain size range of no more than 100μm as recited in the instant claim.

Regarding the limitation of the X-ray diffraction peak intensity ratio (X_2/X_1) not more than 35% as recited in the instant claim 3, Because US'494 teaches the similar Ag alloy target with the uniform strong textural structure as disclosed in the instant claims, and the dispersion in orientation ratio is within the range recited in the instant invention, the X-ray features as claimed in the instant claims would be inherently be obtained in US'494. SEE MPEP 2112 III&IV. Regarding the limitation of measuring X-ray data, it is a measuring method for the known property, which will not change or affect the property of the claimed Ag alloy target.

Regarding claims 4 and 9, US'494 teaches that the target is manufactured to a disk (Col.5, lines 34-44 of US'494).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5, 6, 10, and 11 are rejected under 35 U.S.C. 103(a) as obvious over Segal US'494 in view of Murata Hideo (JP 2003113433 A, thereafter, JP'433).

Regarding claims 5, 6, 10, and 11, US'494 does not specify adding rare earth metal in the silver alloy. JP'433 teaches Ag sputtering target with one or more elements selected from Sc, Y, Sm, Eu, Tb, Dy, Er, or Yb of 0.1 to 2 atom% in total (abstract of JP'433). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add proper amount of rare earth metal as demonstrated by JP'433 into the US'494's alloy in order to obtain improved Ag film (Abstract of JP'433).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6 and 9-11 are rejected on the ground of nonstatutory obviousness type double patenting as being unpatentable over claims 1-4 of copending application No.10/486913.

Although the conflicting claims are not identical, they are not patentable distinct from each other because the instant claims and the conflicting claims define substantially the same Ag sputtering target. Claims 1-4 of copending application No. 10/486913 teaches a similar Ag alloy target with a similar grain size and X-ray peak ration (X_b/X_a) as recited in the instant claims. Thus, no patentable distinction is seen between the alloy of the instant claims and that of the claims of copending application No. 10/486913. Regarding the limitation of measuring grain size (claim 1)and X-ray data (claim 3), they are measuring methods which will not change or effect the properties of the claimed Ag alloy target.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

/Roy King/

Supervisory Patent Examiner, Art Unit 1793